**BEGINNER LEVEL PROJECTS->**

* **News Aggregator Web App Python Django project**

News aggregator service is a very important start of the day. It is a combination of web crawlers and web applications with the implementation in Python. The news aggregator that aggregates new articles from different websites and presents on a single location.

News aggregator scrapes the different websites for the articles, stores objects like the article’s image, links, and title in the database that are served to the clients, and the clients get information in a nice template. So, this is how it will work.

*Do worry about the source code, you can get complete implementation guide and source code of all these projects from here*- [***Python Source Code and Guide***](https://sites.google.com/view/learn-python-data-science/python-projects?authuser=0)

* **Tic Tac Toe Project**

Tic Tac Toe is the most likely played games using pen and paper in schools. For building the Tic Tac Toe game we will be using the basic concepts of python and Pygame library. Pygame library allows the user to create the window and draw images and shapes on the window. This helps in capturing mouse coordination and identify the block where need to mark ‘X’ or ‘O’ and draw the results.

* **Typing Speed Testing project**

Typing Speed Testing is the most important tool to track typing speed and improve it with practice. For building this project we will use the Pygame library that helps in working with graphics and providing a graphical user interface. With this, we can draw the images and text to be displayed on the screen.

**INTERMEDIATE LEVEL PROJECTS->**

* **Detecting fake news python project**

Detecting fake news Python Project is an Intermediate Python project where machine learning libraries are also been used by Python. This project helps in identifying whether the given news is fake. We will be using Sklearn to build a TfidfVectorizer on the dataset. TfidfVectorizer turns a collection of raw documents into a matrix of TF-IDF features.

Now, initialize the PassiveAggressiveClassifier that is an online learning algorithm that stays passive for correct classification and becomes aggressive when there’s a miscalculation and then fit the model. For the results, the accuracy score and the confusion matrix tell about how well the model fares.

* **Age and Gender Detecting Python Project**

Age and Gender Detecting project will be implemented through deep Learning and with the application of Computer Vision, OpenCV, and Convolutional Neural Network (CNN). these applications help you in building a model that predicts the age and gender of a person. Sometimes, it is very difficult to accurately guess the exact age from a single image due to makeup, lighting, obstructions, and facial expressions. So, we make this a classification problem instead of making it one of regression.

* **Detecting Parkinson’s Disease Python Project**

Parkison’s disease is a progressive disorder of the central nervous system that affects movement and can be a cause of tremors and stiffness. It also affects dopamine-producing neurons in the brain.

For this python project, we will use the UCI ML Parkison’s dataset, Python libraries like Scikit-learn, Numpy, and Pandas. In addition, we will use XGBClassifier from Xgboost to build a model that can help in accurately detect the presence of Parkinson’s disease in a person

*Success Mantra for Your First Python Interview* **–**[***Latest Python Interview Questions***](https://bit.ly/37SBAQK)

**ADVANCE LEVEL PROJECTS->**

* **Breast Cancer Classification Python Project**

IDC is the most common form of breast cancer develops in milk ducts and ib=nvades the fibrous/fatty breast tissue outside them, forming about 80% of all breast cancer diagnosis.

In the Breast Cancer classification Python Project, we will build a classifier to train 80% of breast cancer histology images dataset in which we will keep 10% of data validation. With the help of Keras, we will define a CNN and train it on images. Through this, we can derive a confusion matrix to analyze the performance of the model.

* **Driver Drowsiness Detection System Python Project**

The Driver Drowsiness Detection System Python Project can save a life by alerting the driver when he feels drowsy and prevents an accident. The object of this project is to build a drowsiness detection system that will detect that a person’s eyes are closed for a few seconds.

For Detecting Drowsiness, We will be using OpenCV for gathering the images from webcam and feed them into a deep learning model which will classify whether the person’s eyes are opened or closed.

* **Image Caption Generator with CNN Python project**

The objective of the Image Caption Generator project is to learn the concepts of a CNN and LSTM model and implementing the caption generator using the CNN with LSTM model.

This Deep learning project is all about training computers to depict the things that are in the image that is fed to it. The image features will be extracted from Xception which is a CNN model trained on the imagenet dataset and feed the features into the LSTM model which will be responsible for generating the image captions.